The consequences of this trial would seriously affect the prisoner's interests through life; and looking to that circumstance, the absence of everything like ill-will towards his patient, and his advanced age, when a long imprisonment must be attended by the most prejudicial effects, the Court was induced to pass on him the mitigated sentence, that he be imprisoned for one calendar month.

HOSPITAL REPORTS.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, CHELSEA.

CASES AND CLINICAL REMARKS,

BY
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PHTHISIS; EMPHYSEMA; HYDRO-PERICARDIUM.

W. S., ætat. 33, shoemaker, admitted under Dr. Walshe, March 25, 1843. Hair very dark brown, irides greyish-blue, pilous system ill-developed. Father killed by an accident; mother died suddenly; brothers and sisters enjoying excellent health. Has been eight months ill (from close of last July); had a severe wetting then, and felt uncomfortable generally, without having any particular symptom to complain of. Remained for about six or eight weeks without medical aid, when he applied to a dispensary. Is certain that he did not cough till the beginning of the winter; spat from the first in small quantities; occasional pain from the outset in the right infra-clavicular and inter-scapular regions. Affirms that he has never suffered from shortness of breath; but he considers his respiration at this moment (26 in the minute) natural. Night-perspirations set in four months ago; began then to lose flesh, especially in the arms; fancies his legs are less emaciated now than a short while since (probably from the œdema present). Has ceased to work within the last two months only.

Present State.—March 26. Tongue very much pointed, clean, slightly flabby, but not pitted at the edges; appetite good; deglutition easy; no thirst. Abdomen rather full (which he notices himself), not painful or tender in any part. One or two motions daily, not remarkable in any way. Liver extends some two or three inches below the ribs; pulse 126 (patient lying down), easily compressible, tolerably full, regular in force and rhythm; says he has no palpitation or pain at præcordia; respiration 26, very slightly gasping; cough frequent, short, commonly dry; sputa very small in quantity, separate, light-coloured, not striated, nor ragged at edges; some gravitate, others float in water; voice slightly rough; no pain in region of larynx; no headach; intellect slow, but in a natural state; organs of sense unaffected. Skin generally pallid; sweats at night; no rigors; tissues flabby; ankles have swelled during exercise for the last few days, both now pit slightly on pressure in front of the tendo-Achillis; no œdema of chest or arms. Is often called up twice in the night to make water (usually has a basin of milk before going to bed); urine, sp. gr. 1029.3, deep gold colour, slightly turbid, very slightly acid, rendered transparent and reddish by nitric acid; no obvious effect by heat; finely flocculent turbidity by ammonia. Decumbency on the right side; he cannot lie on the left; face pale, expressive of distress, inclined to puffiness; sleeps badly, and has bad dreams; is extremely weak.

Physical Examination.

Anteriorly: intercostal spaces not obvious inferiorly on the right side during inspiration; distinctly so on left; costal movements visible on right side, but dragging and limited; obvious bulging in right latero-inferior region. Posteriorly: manifest bulging, on right side inferiorly.

Mensuration.—Circumference on level of ensiform cartilage thirty-two inches and three quarters; right side, sixteen inches and seven-eighths; left side, fifteen inches and five-eighths. From nipple to middle line on right side, four inches and a quarter; on left, four inches. From sterno-clavicular joint to nipple on right side, six inches and a quarter; on left, barely six inches.

Application of Hand.—Vocal fremitus stronger under left than right clavicle; totally absent in right lateral regions inferiorly, but becomes distinct near the nipple. No simple fluctuation on right side, but here peripheric fluctuation distinct infero-laterally.

Percussion.—Sound less clear on left clavicle internally than on the right; the contrary is the case with the external two-thirds of the bone. Right side, dulness bounded anteriorly by a vertical line passing over the nipple, and extending from apex to base; three inches behind this line the dulness is perfect, and the resistance to the finger extreme; the limits of this dulness alter about a finger's breadth by change of posture. Left side: sound clear, except in region of heart. Posteriorly: sound perfectly dull from base to summit; resistance extreme in the former situation.

Auscultation.—Right side: immediately under clavicle respiration towards sternum obscure, but slightly hollow and blowing, almost suppressed towards the acromion; two inches below the nipple short, quick, blowing, and divided; three inches behind the nipple (where the dulness reaches its maximum) diffused blowing respiration still audible; no rhonchus; obscure vocal resonance under clavicle, altogether lost about the nipple. Posteriorly, respiration weak, distant, and slightly blowing, except close to spine, where strong; superiorly, harsh, blowing with hollow character well marked, where, too, occasionally a few clicks of large-sized, thin metallic rhonchus, and pectoriloquous resonance corresponding to right bronchus; œgophony about inferior angle of the scapula. Left side: respiration under clavicle and inner axilla strongly exaggerated with blowing character, especially in *inspiration;* excessive vocal resonance, not at all circumscribed.

Heart.—Undulating motion visible between fourth and fifth ribs, directly beneath nipple, where the sounds of the heart are both obscure and distant; similar undulation two intercostal spaces higher up; no pulsation between fifth and sixth ribs; impulse, as felt with the hand, inconsiderable; dulness on percussion begins at the cartilage of the third rib, and continues downwards to free margins of ribs; extends laterally from left border of sternum to a little outside the nipple. First sound more audible between fifth and sixth ribs than where pulsation is visible; both sounds *more* audible under left clavicle than at cardiac region; no murmur with either sound; respiratory murmur audible over entire cardiac region.

28. Pulse 126—132 (lying); skin rather dry; bowels open; right side, posteriorly, half an inch below angle of scapula, respiration caverno-amphoric, especially marked after he has spoken; occasional distant gurgling with metallic character; here, too, pectoriloquy with slight œgophonic character. Slight pulsation is visible to-day between the fifth and sixth ribs; none to be felt, however, though distinct, between fourth and fifth; undulating motion higher up diminished; ankles not swelled since last report; can lie on either side now.

April 1. Slight hoarseness; night perspirations as before; slight œdema and glossiness of surface on right side of chest; quantity of urine has been increased for some days, is straw-coloured, of low specific gravity, alkaline, rendered slightly turbid by heat, and transparent (with much frothing) by nitric acid; heart's sounds obscurely audible in most prominent part of *the latero-inferior region of right side;* pulse 120 (lying).

4. Pulse 120; respiration 28; thirst; abdomen free from pain, its muscles contract strongly when percussed; one stool daily; tongue furred at edges; heart's sounds *more* audible at cardiac region than under the left clavicle; pulsation visible between fifth and sixth, more marked between sixth and seventh ribs, less so than formerly between third and fourth; dulness of sound does not begin now till directly above the cartilage of fifth rib; respiration still exaggerated under left clavicle, but of softer special character; thin gurgling rhonchus in larynx on both sides; can still lie on both sides comfortably.

6. Abdomen painful; six motions yesterday.

8. Considerable impulse in præcordial region; sounds well marked without murmur; respiration faintly audible at dullest sounding point of right side of chest; other physical phenomena as before, except that the strong diffused vocal resonance noted (26th) under the left clavicle is much less marked; diarrhœa ceased; pulse 120, lying, 132 standing; respiration 30, lying, 40 standing.

11. Tongue red at tip and edges; abdomen tense and painful, obscurely fluctuating; epigastric veins swollen; vertical line of dulness on right side of chest advances nearer nipple; heart's sounds lost an inch behind this line; bulging greater than before; pulsation in cardiac region less; pulse 120 (lying).

From this till the 4th of May the symptoms continued of the same kind, varying occasionally in severity. The pulse had fallen on the 20th to 104; on the 22nd the first globular and characteristic sputa were observed; the urine recovered the characters noted on the 26th of March; on the 29th the abdomen had manifestly enlarged; the umbilicus protruding slightly, and fluctuation existing obviously; patient's strength gradually failed; he ceased to leave his bed; countenance distressed and pinched.

4. Pulse 104, hard, and full; respiration 52; complains much of dyspnœa; lips slightly livid; physical signs on *right side* as before; *left side*, fine, distant, crepitant rhonchus, occurring in puffs, mingled with tubular variety of blowing respiration; here strong bronchophony and vocal fremitus strongly marked; intercostal spaces visible as before; tubular variety of blowing respiration under nipple; sputa few in number; only one has at all the rusty viscid character.

He gradually sank, and expired at four, a.m., on the 5th; the nurse stated that she had observed a sudden change in his countenance during the night of the 3rd.

He was treated with blisters to the right side; diuretics of different kinds, with digitalis, nitric spirits of ether, decoct. scopar. comp., &c., occasional purgatives, until the occurrence of diarrhœa; the abdominal symptoms were combatted by a few leeches and emollient applications to the abdomen; six ounces of blood were drawn on the 4th of May on the supervention of the pneumonia, and he was put on a sixth of a grain of tartarised antimony every six hours, of which he took only two doses. He had middle diet at first, which was subsequently diminished according to circumstances.

Sectio-Cadaveris Fifty-eight Hours after Death.

Weather damp and cold. No external marks of putrefaction; right hand and arm œdematous.

Abdomen.—Peritoneum studded in all parts with minute tubercles, contains in its cavity about a pint and a half of serosity, with a few flocculi of tuberculous-looking lymph.—Liver: Weight, two pounds fourteen ounces and a half; surface exhibits numerous small, whitish-grey bodies, of somewhat vesicular appearance (grey granulations), removeable with the peritoneum; small portions of the tissue of the liver also came away with this membrane, and the substance of the organ is generally rather pale, exceedingly soft, and *not* fatty.—Bile light coloured and watery.—Spleen: weight, seven ounces and a half; cartilaginiform patches on peritoneal surface, where also one or two tuberculous-looking bodies, pale, yields no fluid under pressure.—Kidneys: Left, weight, five ounces and three-quarters, flaccid, pale; capsule carries away some of the cortical substance, on the posterior surface only.—Right weighs five ounces and a half, congested, soft.—Stomach: of usual size; contains a considerable quantity of fluid of dark colour, with some purulent-looking, blackish matter; inspissated mucus on surface of fundus; here small points of pinkish punctiform injection; arborescent injection underneath, some of the vessels being of sooty colour; surface acid to test-paper, but does not smell very sour; several rounded spots here (size of a large pin's-head) in which the mucous membrane was destroyed; stomach not mammillated at pyloric end; mucous membrane of fundus soft and thin, with slight tendency to transparency.

Mesentery.—Contains numerous masses varying in size from that of a large bean to a pigeon's egg; one of the latter is composed of yellowish matter, of cheesy consistence, and dull opake aspect, associated in some spots with grey translucent substance; one concretion as large as a marble.—Small intestine: Patches of Peyer deeply and extensively ulcerated; borders of each patch considerably thickened and ulcerated; small tubercles in the surrounding intestine; general tract of mucous membrane thinner than natural.

Thorax.—Left lung weighs one pound nine ounces; no costal adhesions, a few of cellular character between the lobes; small superficial cartilaginiform patches at the apex; marked vesicular emphysema of both lobes, especially at the anterior border of the *upper; lower* lobe in a state of hepatisation (except quite at its lower part, where almost healthy), friable, deep livid colour, non-spumous, sinks in water; at the inferior part of the *upper* lobe a few crude tubercles, with some grey granulations also, the apex of this lobe highly engorged, and passing into hepatisation; no tubercles in the lower lobe.—Right lung: Mean height six inches; width about four inches; greatest depth an inch and half; contains several tuberculous excavations, lined with plastic membrane, both at the apex and central parts, traversed by bands in some points; the lower part of the organ is simply condensed and free from tubercle; the entire surface is invested with a coating of firm coriaceous false membrane; the pleural cavity contains several pints of fluid, which is quite greenish, and of watery consistence on the surface, but becomes purulent in its most dependent parts, and contains large masses of albumiform-looking matter.—Pericardium: Healthy in structure; contains about three ounces of transparent serosity.—Heart: Weight seven ounces two grains. Right ventricle contains a small quantity of watery fibrinous coagula, and a small quantity of fluid blood; walls rather thin and flaccid; tricuspid and sigmoid valves healthy. Left ventricle contains a small coagulum; endocardium healthy; walls of good thickness. Aorta healthy, not stained. Left auricle contains a small coagulum; one division of mitral valve rather thicker and less transparent than natural, otherwise healthy.

Cranium not opened.

Remarks.—The phenomena of emphysema were in this case marked in the very highest degree: the physical signs, in fact, models. The perfectly fluid character of the collection in the pleura was especially indicated by the existence of peripheric fluctuation, and by the alteration in the limits of the dull sound produced by changing the patient's position. The former of these signs, one to which it is the habit to give no attention, appears to me likely to prove of real service in certain cases where the solid, semi-solid, or fluid nature of a pleural accumulation, causing dilatation of the side, may be matter of question. I am not prepared to affirm that it always exists where the material collected is quite fluid, and I can readily conceive that thickening of the costal pleura would prevent its detection; but when it exists it furnishes valuable indications, and is besides, as you satisfied yourselves, easily ascertained.

But the state of the lungs themselves was by no means so clear, especially when we saw the patient for the first time, as that of the right pleura. The evidences of a hollow space existing towards the root of the right bronchus were, it is true, obvious; the blowing respiration with hollow special character, the clicks of large-sized, thin metallic rhonchus, and the pectoriloquous resonance discovered there, left no doubt upon this head. But was the hollow space produced by abscess, a dilated bronchus, or tuberculous excavation?

The history of the case was opposed to the admission of abscess as the cause of excavation; at no period had obvious symptoms of pneumonia occurred, and the chronic subacute course of the patient's malady was incompatible with the idea of that inflammation having existed. The rarity of true abscess of the lung is another circumstance of which we may fairly avail ourselves as an element of diagnosis. Although it is now understood that abscess is not so excessively uncommon as it was of late years the habit to believe, still it is singularly rare in comparison with tuberculous excavation. The seat of the phenomena was not so opposed to the connection of these

with abscess as might perhaps be supposed from the statements of some observers upon the subject. I allude to the notion commonly inculcated that such abscesses affect peculiarly the superior lobes; I believe, on the contrary (and I could adduce numerical evidence of the fact), that the upper part of the organ is quite as often, if not more frequently, the seat of these abscesses. I have confined myself, of course, to primary abscess, and exclude from consideration secondary pulmonary abscesses arising from purulent impregnation of the blood?

Some circumstances were favourable to the notion of dilatation of the bronchi being the cause of the phenomena. For instance, the fact of the cavernous phenomena being, at first, most evident about the *root* of the lung; secondly, the absence of marked signs of tuberculous disease of the left lung, for it is infinitely rare to find tuberculous excavation in one organ unaccompanied by obvious signs of well-advanced tuberculisation of the other; thirdly, the deficiency of evidence of hereditary influence; fourthly, the absence of hæmoptysis. But you will observe that no single one of these circumstances can be regarded as decisive of the non-existence of tubercles. Phthisis cuts off about one-third of its victims, without giving rise to hæmoptysis, and all suspicion of hereditary taint is very frequently wanting.

Indirectly we have, then, almost satisfied ourselves of the tuberculous character of the excavation. But more convincing evidence may be found. The course of the affection was precisely that of pleuritic effusion occurring in a tuberculous individual. In the majority of cases, pleurisy, when it leads to effusion in *healthy* persons, is readily curable; the effusion disappears under the use of very simple treatment. I say, emphatically, in the *majority* of cases, for my own experience does not justify me in holding the opinion of Louis, that absorption of the fluid *always* takes place under the circumstances supposed. Besides, as respects the condition of the other lung, you will remember my pointing out that the exaggerated respiration under the left clavicle had something of a *blowing* special character, a peculiarity indicative of actual disease there, and rendered more significant by the existence of slight diffused bronchophony (much more valuable, as a sign, on the left than the right side), some slight dulness on the inner half of the left clavicle, and a greater amount of vocal fremitus under that bone than the right. The existence of chronic peritonitis (*commencing* with fulness of the abdomen, *followed* by pain) tended to give further solidity to the diagnosis. Peritonitis, wearing a purely chronic character, has been shown by Louis to be peculiar to tuberculous or cancerous subjects, and as all evidence of cancerous disease was wanting here, the condition of the peritoneum testified to the tuberculous character of the disease in the lung. Fulness of the abdomen is, in the greater number of these cases, the first symptom observed, and may set in a considerable time before pain, the patient being annoyed at finding his clothes button less comfortably than before. No inference, in either direction, could be drawn from the state of the liver. Had enlargement of that organ been detected, this would not have justified us in regarding the enlargement as dependant on fatty disease; nor would that disease, had it been actually present, have proved the existence of phthisis, for the simple reason that fatty disease of the liver has *in this country* no obvious connection with phthisis. In France, on the contrary, the detection of enlargement of the liver, in such a case, would not be without its significance in respect of the diagnosis.

But all the circumstances now referred to, led to the determination of the tuberculous nature of the malady before us, a diagnosis which the progress of the physical and other signs rendered daily more certain. And this determination settled for us the first grand question of treatment in cases of empyema; it put out of all question the performance of paracentesis. It also set aside the idea of treating the case by hydragogue purgatives; for purgatives cannot be given to any extent to phthisical patients without imminent risk of bringing on ulceration of the bowels, and all its terrible consequences, which, directly or indirectly, not unfrequently prove the cause of the phthisical sufferer's death. Nor would there be any doubt in my mind, in such a case as this (admitting its advisability in *any*), of the impropriety of putting in force the mercurial treatment so strongly advocated by the late Dr. Hope, advocated, as it has always appeared to me, upon most unsatisfactory evidence. Blisters to the chest, and a diuretic treatment, were, as almost the only available system of medication, had recourse to. They were followed by their common effect, improvement to a slight amount of the local and general symptoms; the common effect, I mean, in persons having advanced tuberculous disease as well as effusion. The first evidence of local improvement was here, as I have repeatedly observed in other cases, the return of the patient's ability to lie upon either side. Subsequently, the quantity of effusion increased and diminished alternately, but never to any great extent.

The evidence of the presence of fluid in the pericardium was most satisfactory; the only circumstance apparently difficult to account for was the existence of respiratory murmur all over the præcordial region. I have heard this in other instances, however, when the respiration was exaggerated, in the left lung. That the fluid was the result of non-inflammatory effusion (hydro-pericardium) appeared from the absence of the symptoms of pericarditis; and the diagnosis was confirmed by the post-mortem examination. Here, too, we had the same evidence of increase and decrease of effusion as in the pleura; it is scarcely necessary to remind you, that the quantity of fluid at one time present, was considerably greater than that discovered after death.

The urine became at one time loaded with phosphates (April 1); this state was but temporary, and, probably, indicative of passing irritation of the kidneys.

Towards the close of April, the frequency of the pulse diminished; but this was not accompanied with any corresponding improvement in the general state. On the contrary, without any very obvious physical change in the chest, he was gradually but obviously sinking, when, on the 4th of May, we found him labouring under an attack of pneumonia of the comparatively sound lung. It had already run on to the second stage (as shown by the tubular respiration, &c.), though, in all probability, the inflammation had not existed more than fourteen or eighteen hours when I saw him. But this rapid course of the inflammation is by no means uncommon, when it occurs as the closing phenomenon of phthisis. I hesitated whether to bleed him; the prognosis was indubitably fatal. Still the hardness and fulness of the pulse, his extreme dyspnœa and distress, decided me in ordering six ounces of blood to be drawn. The loss of this small quantity of blood nearly produced fainting. He was put on a sixth of a grain of tartarised antimony every sixth hour, but died within twelve hours, having taken only two doses.

The pneumonia, as is usual, under the present circumstances, came on suddenly, without apparent cause, and gave rise to scarcely any expectoration of characteristic sputa. Among the physical signs, you will remember, I drew your attention particularly to the marked vocal fremitus over the seat of hepatisation, which, especially as occurring on the left side of the chest, is particularly worthy of attention.

ON REPEATED EXAMINATIONS.

To the Editor of THE LANCET.

SIR,—Seeing an article in your valuable Journal o Saturday last entitled "The Advantages of Repeated Examinations at different periods of a Medical Education," I wish, if your limits will allow, to make a few remarks on that communication.

In the first place the writer comments on the errors of the College of Surgeons and Apothecaries' Hall in only demanding an examination at the conclusion of the requisite curriculum of study, whereas imperatively demanding various examinations during the requisite curriculum would be the most efficient means of stimulating the more idle and dissolute part of the students to greater exertions, by keeping up, as it were, a more continual stimulating effect; the more so as under the present system of only one examination these have a great tendency to allow the